

# Jordan - Water Smart Homes

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# Overview

## Identification

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**COUNTRY**

Jordan

**EVALUATION TITLE**

Water Smart Homes

**EVALUATION TYPE**

Independent Impact Evaluation

**ID NUMBER**

DDI-MCC-JOR-SI-WSH-2019-v01

## Version

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**VERSION DESCRIPTION**

- v01: Anonymized dataset for public distribution

## Overview

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**ABSTRACT**

Activity 1: Outreach Campaign

The evaluation for the Water Smart Homes Outreach Campaign is an ex-post design, using different methods for respondents from the household survey sample versus households from the NAF beneficiary survey sample. For the household sample, the evaluation is an impact evaluation using a difference-in-difference (DiD) panel analysis. For the NAF sample, the evaluation is a cross-sectional impact evaluation using post-intervention means comparisons and multivariable regression (controlling for potential household confounders) of outcomes across treated and untreated households with NAF beneficiaries. The evaluation question is, Did the WSH messaging campaign lead to significant changes in household water handling and storage, that manifested in a) improved water potability and b) improved water efficiency at the household level? The Outreach Campaign was implemented between September 2015 and August 2016.

Activity 2: Direct Assistance Program

The evaluation of the WSH-ISW program is a cross-sectional impact evaluation using post-intervention means comparisons and multivariable regression (controlling for potential household confounders) of outcomes across treated and untreated NAF households. There are two evaluation questions for this activity: 1) Did the WSH activity lead to infrastructure improvements among NAF beneficiaries? and 2) Did NAF beneficiaries experience economic benefits from these infrastructure and behavioral changes, specifically through reduced coping costs, increased household productivity, and/or improved health and well-being? The WSH-ISW program was implemented between April 2015 and August 2016.

Activity 3: Women Plumbers Program

The evaluation of the Women Plumbers Program is an ex-post performance evaluation using qualitative methods. The evaluation question is, Did the plumbers training portion of the WSH intervention lead to long term capacity and employment opportunities for the women who participated? The training took place from March to April 2015.

**EVALUATION METHODOLOGY**

Ex-Post

**UNITS OF ANALYSIS**

Activity 1: Outreach Campaign - households

Activity 2: Direct Assistance Program - households

Activity 3: Women Plumbers Program - individuals

**KIND OF DATA**

Sample survey data [ssd]

**TOPICS**

Topic	Vocabulary	URI
Water, Sanitation and Hygiene	MCC Sector	

**KEYWORDS**

Water, Water Smart Homes, jordan, water efficiency

## Coverage

**GEOGRAPHIC COVERAGE**

Zarqa Governorate

**UNIVERSE**

Activity 1: Outreach Campaign - Heads of households or spouses living in Zarqa or Amman, Jordan.

Activity 2: Direct Assistance Program - NAF beneficiaries in Zarqa who were eligible for the Water Smart Homes Infrastructure Works program.

Activity 3: Women Plumbers Program - Participants of the Women Plumbers Program.

## Producers and Sponsors

**PRIMARY INVESTIGATOR(S)**

Name	Affiliation
Social Impact	

**FUNDING**

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

## Metadata Production

**METADATA PRODUCED BY**

Name	Abbreviation	Affiliation	Role
Millennium Challenge Corporation	MCC		Review of Metadata
Social Impact	SI		Independent Evaluator

**DATE OF METADATA PRODUCTION**

2019-04-02

**DDI DOCUMENT VERSION**

Version 1 (Original 2019-04-02)

**DDI DOCUMENT ID**

DDI-MCC-JOR-SI-WSH-2019-v01

## MCC Compact and Program

**COMPACT OR THRESHOLD**

Jordan Compact

## PROGRAM

The Water Smart Homes (WSH) evaluation is intended to explore the three activities under the WSH program: · Activity 1: Outreach campaign · Activity 2: Direct assistance program · Activity 3: Women plumbers program Throughout this Evaluation Design Report (EDR), we reference the Impact Evaluation Design Report prepared by Social Impact for the evaluation of the Millennium Challenge Corporation's (MCC) five-year Compact with the Government of Jordan (GOJ). At the time of approval of the Compact EDR, there was insufficient information about the Water Smart Homes Activity to produce an evaluation design. It was determined then that an evaluation component could be proposed at a later date, but that the scope of this evaluation would have to be commensurate with the small scale of the investment relative to the main infrastructures. This document expands on the approach to the Water Smart Homes evaluation detailed in Annex F of the Compact EDR.

## MCC SECTOR

Water, Sanitation and Hygiene (WASH)

## PROGRAM LOGIC

**Activity 1: Outreach Campaign** The WSH Outreach Campaign aimed to promote water conservation behaviors and investments in Zarqa, targeting a variety of communication channels. Messages were disseminated through interpersonal channels (religious “waethat”, NAF, and women NGO networks; tribal “madafa” networks, and school education), and distribution of differentiated communication materials (interpersonal messages, posters/banners, news and social media channels, pamphlets, toolkits and water bottles, and educational videos). Key outcomes of these outreach activities in the project logic include increased access to information, increased household water storage, improved in-home water management practices, reduced disease, reduced school and work days missed, reduced health care expenses, and reduced costs to households in meeting water needs.

**Activity 2: Direct Assistance Program** The WSH Infrastructure Works (WSH-ISW) program aimed to address accessibility barriers to financing replacement work via household infrastructure grants. The target audience for the WSH-ISW intervention was poor and under-consuming households who are connected to the public system in Zarqa. Eligible National Aid Fund (NAF) beneficiaries were surveyed to gauge priority based on their level of need, and those selected received improvements to their household water infrastructure. Key outcomes of the WSH-ISW activities in the project logic include improved household water infrastructure, improved in-home water management among NAF households, reduced disease, reduced work and school days missed, reduced health care expenses, increased land value, decreased use of tanker and shop water, and reduced costs to households in meeting water needs.

**Activity 3: Women Plumbers Program** The Women Plumber Program (WPP) contributes to the overall Compact objective of poverty reduction and economic growth through development of skills among women to enable access to income generation opportunities. The program which trained women to work as plumbers aimed to provide women in Zarqa with employment opportunities and increase household income. Key outcomes of the WPP activities in the project logic for the WPP include women trained in plumbing profession, improved skills, increased employment opportunities, and increased household income.

## PROGRAM PARTICIPANTS

**Activity 1: Outreach Campaign** - The primary audience for the Outreach Campaign was household decision makers on in-home water management in Zarqa, mainly but not exclusively women. The secondary audience was mainly comprised of male and female elementary school children in Zarqa.

**Activity 2: Direct Assistance Program** - Recipients of the WSH-ISW program were selected from a survey of roughly 11,000 NAF beneficiaries living in Zarqa governorate. Based on the results of these surveys, 5,198 households were deemed eligible for infrastructure support, and were ranked in priority based on a composite eligibility score that included factors related to baseline infrastructure conditions, land tenure, and household socio-economic variables. In the end, 3,958 of NAF households benefited from the improvements.

**Activity 3: Women Plumbers Program** - The target population for the WPP was women between the ages 25 and 40 with a minimum level of education of 9th grade. Participants were required to clear a security and health screening and report family acceptance of their participation in the program. Thirty women received the training.

# Sampling

## Study Population

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Activity 1: Outreach Campaign - Heads of households or spouses living in Zarqa or Amman, Jordan. Activity 2: Direct Assistance Program - NAF beneficiaries in Zarqa who were eligible for the Water Smart Homes Infrastructure Works program. Activity 3: Women Plumbers Program - Participants of the Women Plumbers Program.

# Questionnaires

## Overview

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### Activity 1: Outreach Campaign

The survey questions for the Outreach Campaign are included within the seasonal 2 backcheck survey, endline household survey, and semi-quantitative NAF instrument (described under Activity 2). Other than the module on message recall, these surveys include household demographics, water subscriber information and billing, water sources, a household roster, water-borne diseases, sanitation and hygiene, and income and consumption.

### Activity 2: Direct Assistance Program

The questionnaire for the WSH-ISW program was semi-quantitative, including mostly quantitative questions similar to the household survey, and a brief qualitative section specific to WSH-ISW. This semi-quantitative NAF instrument included sections on household demographics, water subscriber information and billing, water sources, a household roster, water-borne diseases, sanitation and hygiene, income and consumption, infrastructure observation, and perceptions of the WSH-ISW program.

### Activity 3: Women Plumbers Program

The qualitative interview guides for the WPP were designed to be mostly qualitative, but include some quantitative questions. The topics covered by the qualitative portion of the instrument include career trajectory, motivation for participation in the WPP, skills gained from the WPP, and overall perceptions of the program. Quantitative questions include income, a self-assessment of skills, career, participation in similar training programs, and monthly customers/plumbing jobs.

## Data Collection

### Data Collection Dates

Start	End	Cycle
2016-11	2016-12	Seasonal 2 Backcheck
2018-04	2018-06	Household Endline
2019-02	2019-03	NAF Survey
2019-02	2019-04	Women Plumber KIs

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### Data Collectors

Name	Abbreviation	Affiliation
Interdisciplinary Research Consultants	id:rc	
Ipsos Stat Jordan Ltd	Ipsos	
Social Impact	SI	

# Data Processing

No content available



# Data Appraisal

No content available